

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008603**Date Inspected:** 09-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** ZPMC and ABF**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

**Tower Assemble Yard**

**East Tower Lift #1 & #2:-** Caltrans QA Inspector observed ten ZPMC workers performed drilling process on two tower connection areas of the skin plate C and E for east tower lift #1 & #2. The holes template has been installed and secured by hold devices, the alignment of holes template has accepted by ZPMC and ABF prior drilling hole. Based on Caltrans QA inspector observations, no discrepancies were noted.

**South Tower Lift #1 & #2:-** Caltrans QA Inspector observed six ZPMC workers performed drilling process on two tower connection areas of the skin plate A for south tower lift #1 & #2. The holes template has been installed and secured by hold devices, the alignment of holes template has accepted by ZPMC and ABF prior drilling hole. Based on Caltrans QA inspector observations, no discrepancies were noted.

**East Tower Lift #1:-** Caltrans QA Inspector observed ZPMC five grinders performed grinding process on buildup weld metal for weld joint bevel. The buildup weld metal is on stiffeners which located at exterior bottom tower of skin plate A, B, C, D and E for east tower lift #1. The grinding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

**South Tower Lift #1:-** Caltrans QA Inspector observed ZPMC three grinders performed grinding process on buildup weld metal for weld joint bevel. The buildup weld metal is on stiffeners which located at exterior bottom tower of skin plate A and E for south tower lift #1. The grinding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

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## WELDING INSPECTION REPORT

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### Bay #10 South and North Tower Shop

North Tower Lift #1:-Caltrans QA Inspector performed QA UT test on the one spot of outer corner longitudinal seam weld that connected skin plate A to E of north tower lift #1. The weld test spot length is from 0m to 13m and the weld ID is NSD1-A112B/H-4A/B. Base on Caltrans UT inspection, the 0m to 13m spots corner longitudinal seam weld appeared to be in compliance with requirements of AWS D1.5 2002 and Caltrans contract documents.

North Tower Lift #3:- Caltrans QA inspector observed four ZPMC welding operators performed semi-automatic SAW on outer corner longitudinal seam weld that connected skin plate C to D of north tower lift #3. The semi-automatic SAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

North Tower Lift #2:- Caltrans QA Inspector observed two welders performed FCAW repair process on inner corner longitudinal seam weld that connected skin plate A to E. The FCAW repair welding located at elevation 56m and 65m diaphragm section. The FCAW repair welding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

South Tower Lift #3:- Caltrans QA Inspector observed four welders performed FCAW process on inner corner longitudinal seam weld that connected skin plate D to E. The FCAW welding located at elevation 89m to 109m diaphragm section. The FCAW welding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

North Tower Lift #1:-Caltrans QA Inspector observed six welders performed FCAW welding process on the corner cover plates that connected skin plate A and E. The corner cover plates are located at elevation 18m to 47.6m double diaphragm section. The FCAW welding were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

As notes within report above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinoved 13482570045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Pau, Wai	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford, William	QA Reviewer

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